

REMARKS

Applicants acknowledge the allowance of claims 9-11 and 14, as set forth in paragraph 8 of the Office Action, as well as the indication of the allowability of the subject matter of claims 2-8, 12 and 13, as set forth in paragraph 9 of the Office Action. In particular, the latter claims would be allowable if rewritten in independent form. By the foregoing amendment, claim 2 has been rewritten in independent form as suggested. Accordingly, because claims 3-8, 12 and 13 depend, directly or indirectly from claim 2, the latter claims are now believed to be allowable.

In addition, applicants have also added new claims 15-23. In order to assist in the examination of these new claims, applicants note that the derivation of certain ones of the added claims is as follows:

<u>Existing Claim</u>	<u>New Claim</u>
4	16
5-8	17-20
12 and 13	22 and 23

Other than new claim 21, which depends from claim 1, each of these new claims depends directly or indirectly from claim 15, which in turn depends from claim 1.

In response to the objection to the drawings, as set forth in paragraphs 4 and 5 of the Office Action, applicants have submitted herewith replacement sheets containing Figures 14-17, as required. Accordingly, reconsideration and withdrawal of this ground of rejection are respectfully requested.

Claim 1 has been rejected under 35 USC §102(a) and/or (e) as anticipated by Natsune (U.S. Patent No. 6,646,589). However, for the reasons set forth hereinafter, applicants respectfully submit that claim 1, as well as new claims 15-23, distinguish over the Natsune reference.

The present invention provides a radio wave radar system in which plural modulation methods are used, and in which the modulation methods are switched on the basis of the relative speed between the host vehicle and a target traveling ahead. Thus, for example, claim 1 recites, "control means for switching modulation methods in the modulation means, depending on variation of the relative speed between the host vehicle and the forward object."

The Natsune reference, on the other hand, discloses a Frequency Modulated Continuous Wave (FMCW) radar system, which uses first and second modulation modes in order to provide two measurements of relative speed and distance between the host vehicle and the target ahead, as indicated, for example, at column 16, line 66 through column 17, line 8. Only when the two measurements (made in the first and second modulation modes) are identical is

the target accepted as a final target. In this manner, the apparatus removes frequency signals and frequency components in the first or second modulation modes, each of which does not form a pair with that acquired in the other modulation mode, and would arise to a noise component. As noted at column 17, lines 7-8, this results in improved reliability of detection targets.

Insofar as applicants have been able to determined, however, Natsune fails to teach or suggest a radio wave radar system which detects at least one of distance and relative speed between the host vehicle using one or the other of two different modulation methods, with the system switching between modulation methods as a function of the relative speed between the host vehicle and the target, as recited in claim 1. Accordingly, applicants respectfully submit that claim 1, and therefore, all claims of record in this application, distinguish over the Natsune patent.


If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

Please note that claim 14, in the originally filed application, was inadvertently calculated as a single claim. This claim has now been calculated correctly and the fee for these extra claims is included in the attached Fee Transmittal.

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If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056205.52633US).

Respectfully submitted,



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Amendments to the Drawings:

The attached sheet of drawings includes changes to Figs. 14-17. These figures have been identified as "Prior Art," as requested in paragraph 5 of the outstanding Office Action.